Nitrogen-induced structures in epitaxial graphene on 6H-SiC(0001)\textsuperscript{1} GUOFENG SUN, SUNG-HYON RHIM, University of Wisconsin-Milwaukee, YUN QI, MICHAEL WEINERT, LIAN LI, University of Wisconsin-Milwaukee — Nitrogen-induced structures on epitaxial graphene grown on 6H-SiC(0001) are studied by scanning tunneling microscopy (STM) and first-principles calculations. Several defect structures produced by nitrogen incorporation are observed by STM. Calculations of the energetics of nitrogen substitution at various sites neighboring a carbon vacancy indicate that nitrogen prefers to be at the site nearest to the vacancy, consistent with the STM observations.

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